

REMARKS

Claims 2 and 4-9 are all the claims pending in the application. Applicants acknowledge with appreciation the allowance of claims 4-9, but again submit that the examiner has misunderstood either the claimed invention or the prior art in his rejection of claim 2, and accordingly request reconsideration of the application and allowance of all claims.

Claim 2 stands rejected as unpatentable over Fukusawa in view of Molev-Shteiman. The examiner relies on Fukusawa to teach all that is claimed other than the alternating modulation of the synchronization signals by +1, -1, and relies on Molev-Shteiman to teach this feature. But Molev-Shteiman clearly does not teach this feature, and the rejection can only be based on a misunderstanding of either the claim or the prior art.

Fukusawa shows a sync signal generator 10 which is added at 12 to a spread data signal. While not shown in Fig. 1 of Fukusawa, there is another modulator downstream of the adder 12 to modulate a carrier signal with the output of the adder 12, e.g., as indicated in the description beginning at line 35 of column 3 of Fukusawa. What Fukusawa lacks is a modulator in series with the signal generator 10 to alternately modulate the synchronization signal by +1 and -1.

Molev-Shteiman teaches a modulator 44 which modulates the data from 40 with a pseudorandom code sequence from 42 to obtain coded data. In Fig. 7, there is also shown a code sequence generator 80 which can be used to generate synchronization codes. Via the switch 82, either the coded data or the synchronization code can be supplied to the modulator where it is modulated onto the carrier for transmission. There is no alternate +1, -1 modulation of the synchronization code before it is modulated into the carrier. So the only +1, -1 modulation

that could possibly occur in the modulator 46 is if the synchronization code itself is a +1, -1 sequence. But if this were the case, this would not be modulation *of* the synchronization code by +1, -1 but would instead by modulation *by* the synchronization code.

The excerpts from Molev-Shteiman originally cited by the examiner simply describe how modulation works. It is not contested that o chips would be mapped to +1 and 1 chips would be mapped to -1. This is simply a fundamental characteristic of how the modulation works. But there are two very clear areas in which the prior art fails to teach the claimed invention.

First, claim 2 recites that the synchronization code is modulated by +1, -1. In Molev-Shteiman, the code sequence from the code generator 80 will be supplied to the carrier modulator 46 where is will modulate the carrier by +1 and -1 values corresponding to the bit pattern of the code sequence. But this is modulation of the carrier, this is not +1,-1 modulation of the code sequence. The excerpts cited by the examiner are describing the modulation of the data signal by the pseudorandom code sequence in the modulator 44, but this is not modulation of the synchronization code sequence from generator 80. There is no discussion anywhere in Molev-Shteiman of modulating the code sequence from generator 80.

Second, and equally importantly, modulation by +1 and -1 is in accordance with the bit pattern of the modulating signal. Claim 2 of the present application requires that the modulation be alternating, with alternating used in its normal manner and defined at lines 6-9 of page 12 of the specification to mean that ever other bit is +1 and every other bit is -1. The examiner is correct that +1 and -1 are used to modulate in the normal operation of a modulator, but the

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present claim requires alternating multiplication by +1 and -1, i.e., +1, -1, +1, -1, etc. This is simply not suggested in either of the cited references.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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